

CHAPTER 6

Regulatory Requirements

6.1. Introduction. This chapter discusses environmental regulations as they pertain to landfill gas emissions. Regulations addressed in this section include Resource Conservation and Recovery Act (RCRA) solid and hazardous waste management requirements, Clean Air Act (CAA) requirements, and Clean Water Act (CWA) requirements associated with landfill emissions. Many of the regulations discussed below apply to currently operating or recently closed landfills and may not be appropriate for landfills that stopped receiving wastes prior to 1987. It is important that personnel know the regulatory framework under which the LFG control is being done (e.g., CERCLA remediation, RCRA Corrective Action, etc.) in order to determine which, if any of the following requirements must be met.

6.1.1. The discussion of applicable regulations and legal requirements in this chapter is only meant to make the reader aware of some of the many requirements that may potentially apply to landfill gas emissions and disposal of condensate. This chapter is not intended to stand in place of any applicable law, regulation, or standard and may not reflect the current standards embodied in law and regulation. Statutes and regulations are the controlling rule of law and should always be consulted to determine how they apply to a particular set of circumstances to assure compliance before action is taken. USACE will comply with all applicable laws and regulations. The PM district will provide general legal services in support of FUDS and FUSRAP. For FUDS and FUSRAP projects, the determination of the laws and regulations governing environmental aspects for any specific project will be made in consultation with the Office of Counsel. In the event of any dispute with a regulator over the governing laws on a FUDS or FUSRAP project, the district providing general legal services will represent the agency in negotiations or adversary proceedings. For other work performed by USACE under a different program or authority (i.e., BRAC, IRP, Work for Others), the appropriate legal representative of the sponsoring agency will be the lead counsel for all legal matters, although the USACE Office of Counsel will be available for consultation.

6.2. Summary of Applicable Regulations. Regulations affecting LFG management are addressed under various legislation including:

- The RCRA which regulates solid and hazardous waste management such as the landfill itself.
- The CAA which regulates air emissions.
- The CWA which regulates discharges of water such as LFG condensate and storm water runoff.

A brief summary of potential federal regulations applicable to LFG management follows.

6.3. RCRA Regulations. Under RCRA, if LFG is emitted or condensate is treated and/or disposed of, RCRA requirements may have to be met. Primary RCRA requirements pertaining to LFG emission and condensate disposal are found in the following regulations:

- 40 CFR Part 258 [regulations for LFG emissions from MSW (non-hazardous) landfills]
- 40 CFR Parts 260-261 [regulations for characterization and disposal of condensate]
- 40 CFR Part 262 [regulations pertaining to generator requirements]
- 40 CFR Part 268 [regulations for land disposal restrictions]

6.3.1. Response actions taken under CERCLA (IRP, FUDS, BRAC or Superfund) are not required to obtain RCRA permits for on-site treatment or storage. However, substantive requirements such as physical storage requirements and containers will most likely have to be complied with.

6.4. CAA Regulations. Since passage of the Federal CAA in 1970, many rules and regulations have been adopted that could potentially affect LFG operations. The applicability of these rules and regulations are governed by specific factors such as the implementation schedule of the rule, size of the facility, the equipment and type of operations conducted at the site, and the emissions from these operations. Personnel need to be familiar with the specific requirements of each regulation prior to deciding whether or not the requirements apply to their project. Potentially applicable CAA regulations include:

- New Source Performance Standards (NSPS) found at 40 CFR Part 60
- National Emission Standards for Hazardous Air Pollutants found at 40 CFR 63
- Title V Operating Permits found at 40 CFR Part 70
- State and local air quality regulations

6.4.1. EPA designed the Title V operating permit program as a central mechanism to regulate emissions, monitoring data needs, compliance schedules, fee payments, and other conditions associated with the issuance, compliance and enforcement of operating permits. Personnel involved in designing LFG control systems should ensure that the customer is made aware of calculated LFG emissions and what control devices will be used to control them. This information is important to the customer who is ultimately responsible for determining the need to obtain a Title V operating permit or to revise an existing permit. Any questions regarding the need to obtain an operating permit for the LFG control system should be discussed with the customer and the project team.

6.5. CWA Regulations. Under the CWA, if LFG condensate is disposed of by treatment and effluent discharge to Waters of the United States, discharge permits may be required and effluent concentrations/limits may be required to meet a state's water quality standards. Effluent analyses required for all discharge permits can include:

- Biochemical Oxygen Demand (BOD).
- Chemical Oxygen Demand (COD).
- Total Organic Carbon (TOC).
- Total Suspended Solids (TSS).
- Ammonia (as N).
- Temperature.
- pH.
- Flow.

6.5.1. Response actions taken under CERCLA (IRP, FUDS, BRAC or Superfund) are not required to obtain discharge permits. However, substantive requirements such as numerical discharge limits may still have to be established and met at these sites, especially when condensate is discharged via a point source to Waters of the U.S.

6.5.2. Other analyses may be required if other pollutants are expected to be present. Permittees may also be required to test their discharge for toxicity. If the condensate is disposed of by indirect discharge through a publicly owned treatment works (POTW), sewer effluent conditions will be imposed by the local POTW as regulated by local ordinances or federal requirements.

6.6. **State and Local Requirements.** Many states and local authorities have also adopted rules that impact LFG emissions and disposal of condensate. The CAA, RCRA, and CWA all contain provisions that generally subject Federal facilities to State and local requirements, both substantive and procedural, controlling the same subject matter as the respective Federal laws. Refer to each Federal statute to determine the scope of this application of Federal, State and local law to Federal facilities. States can, and frequently do, have regulations that are more stringent than the Federal requirements. It is crucial that personnel know the specific requirements of the state in which the project is located in order to ensure compliance with applicable regulations.